PermaPine Ltd



Building Product Information Sheet

This sheet is produced in compliance with the requirements of the *Building (Building Product Information Requirements) Regulations 2022*. Under Schedule 1 of those regulations certain information must be disclosed about designated building products (in this case **Wooden house piles**) to provide building product users with data about how building products contribute to compliance with the Building Code.

Product: Wooden House Piles

Wooden house piles are used in conjunction with sub floor timber framing systems to elevate constructions (mainly dwellings) from the ground, particularly where the ground is uneven or on a slope. Use on level or flat ground is also applicable.

Experience such as from the Canterbury earthquakes of 2010 and 2011, has shown that piled flooring systems offer enhanced protection against major damage in seismic events and flooding.

Wooden house piles may be round or square sawn.

1 Physical properties: - The standard cross section dimension for sawn house piles is 125mm x 125mm but they may be larger. - The minimum diameter for a round house pile is 140mm except that they may be as small as 120mm diameter within 200mm of either end or may be pointed to facilitate driving into the ground. - The maximum length of a house pile is 3.6m. - Round piles have a straightness requirement and sawn house piles have limitations on permitted warp.

2 Grade: - Timber house piles must be graded to No1 Framing as per NZS3631:1988 New Zealand Timber Grading Rules. - Sawn anchor piles must have their physical properties verified by proof testing conducted in accordance with procedures set out in Appendices A and B of NZS3605. In simple terms the tests involve the application of a load of 3.3 to 4.1 tonnes to the face of a pile for a period of at least 10 seconds without the piece showing signs of distress or permanent damage. -Sawn house piles of Pinus species that are 3.0m or longer must have no less than four growth rings between the pith and the nearest sawn face.

3 Treatment: - All timber house piles must be treated to Hazard class H5 as described and specified in AS/NZS1604.2021 Preservative treated wood-based products

Place of manufacture: New Zealand

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Relevant Building Code clauses:

B1 Structure - By testing and comparison with Acceptable Solution B1/AS1 and verification methods (VM) as specified in NZS3605 Timber piles and poles used in building

B2 Durability - By testing and comparison with Acceptable Solution B2/AS1 and verification methods (VM) as specified in AS/NZS1604.2021 Preservative treated wood-based products

Statement on how wooden house piles are expected to contribute to compliance:

B1 Structure - the products shall meet the requirements of Clause B1 of the Building Regulations 1992, Schedule 1 the Building Code in particular clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3 and B1.3.4.

B1.1 - safeguarding people from injury and loss of amenity and protection of other property

B1.2 - functional requirements of buildings throughout their lives

New Zealand Timber Industry Federation Inc – original developed for industry use and uncontrolled after distribution, queries should be addressed to the nominated producer.

B1.3.1 - low probability when used in a building in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of rupturing, becoming unstable, losing equilibrium or collapsing throughout their lives

B1.3.2 - low probability when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of causing loss of amenity through undue deformation, vibratory response, degradation or other physical characteristics throughout their lives when the building is in use

B1.3.3 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, account is taken of all the physical conditions that are likely to affect the stability of the building element or building

B1.3.4 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, allowance is made for; i consequences of failure ii intended use of the building iii variation in the properties of materials and site characteristics iv accuracy limitations inherent in methods used to predict the stability of buildings

B2 Durability - the products shall meet the requirements of Clause B2 of the Building Regulations 1992, Schedule 1 of the Building Code, in particular clause B2.3.1(a) - the life of the building, being not less than 50 years.

For greater detail refer to clause B2.3.1 of the Building Regulations 1992.

The durability of preservative treated round and sawn wooden house piles is verified by processes and methods stated in AS/NZS1604.2021 Preservative treated wood-based products.

Limitations on the use of wooden house piles:

These products should not be used in structures that will be exposed to the marine environment such as in wharf and jetty piles in salt water and for walkway or bridge pilings across estuarine ground.

Design requirements that would support the use of wooden house piles:

Wooden house piles are an integral component of timber framed flooring systems constructed in accordance with the specifications set out in NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures.

Maintenance requirements:

Ensure that the sub flooring system is exposed to fresh air flow at all times.

Installation requirements:

Wooden house piles must be installed by a Licensed Building Practitioner certified for foundations.

Wooden house piles are not subject to a warning or ban in terms of S26 of the Building Act 2004.

Date: 17/08/23